

CLAIMS

1. Implantable stent (1) which is insertable as a support sleeve in a region of a vascular constriction (3) that is expandable by means of a balloon catheter (2), the stent (1) comprising a wall that is expandable radially and has a continuous break (4) along at least one longitudinal side, punchings (6) are provided on edges (5) that extend axially on both sides of the break (4), in a first working position the punchings (6) are covered and penetrated by at least one removable holding element so that the break (4) is held closed or at a specified slot spacing.

2. Stent according to claim 1, wherein the axially extending break (4) has at least one of a wave-like, zig-zag or meander-like course, and includes tongues (7) along one of the edges (5) that are oriented in a first peripheral direction that engage in between tongues (7) along the other of the edges (5) that are oriented in an opposite peripheral direction, and wherein the punchings (6) are arranged in the tongues (7).

3. Stent according to claim 1, wherein the punchings (6) on the two edges that are interdigitated with each other by means of tongues (7) are generally arranged on a line running approximately axially and are acted upon by an axially and/or radially oriented holding element.

4. Stent according to claim 3, wherein the removable holding element that keeps the break (4) of the stent (1) together is at least one of a thread (9), a plastic band (12) or a large number of rivets (13) and is formed of a material which dissolves in the body of the patient.

5. Stent according to claim 3, wherein the removable holding element is a wire or stylet (8) made of metal.

6. Stent according to claim 5, wherein a holding element or drawn thread engaging through the punchings (6) along the break (4) is a surgical sewing thread which in particular runs from a front face (10) of the stent (1) to an opposite face (11) and from there back again through the punchings (6), and wherein beginning and end of the holding element or thread (9) are connected with each other.

7. Stent according to claim 1, wherein the stent is constructed in a flat, unrolled form, and is shaped into a support sleeve which is held together on the edges facing one another according to the shaping of the sleeve by a holding element connecting the punchings (6), wherein the holding element comprises a wire or a thread (9).

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8. Stent according to claim 1, wherein, on at least one front face (10; 11) of the stent (1), at least one of a removable, pliable or elastic connection element (14) is provided for connecting with an additional stent (1) that extends in an approximately axial direction.

9. Stent according to claim 8, wherein on adjacent faces (10; 11) of the stents (10; 11) to be joined with another of the stents (1), (1a) and (1b), in each case eyelets (15) or recesses are provided which are connected by especially dissolving threads (14).

10. Stent according to claim 1, wherein the stent is made of metal.

11. Stent according to claim 1, wherein the stent is made of a self-expanding-shape memory alloy.

12. Stent according to claim 11, wherein the shape memory alloy is nitinol.

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